ASSIGNMENT 12

Textbook Assignment: "Navy Tactical Data System," chapter 14, pages 14-8 through 14-37; and "Support Systems and Miscellaneous Equipment," chapter 15, pages 15-1 through 15-4.

12-1. What unit of the Link 11 system encodes data into audio tones, and generates and recognizes protocol signals?

1. Encoder
2. KG-4O
3. DTS
4. Computer

12-2. In which of the following modes can the MODEM send and receive data at the same time?

1. ComSec
2. Half-duplex
3. Full-duplex
4. All of the above

12-3. What feature(s) allow(s) error checking to be performed on received data words?

1. EDAC bits
2. Hamming bits
3. Both 1 and 2 above
4. Error detector

12-4. Which of the following components comprise(s) protocol words?

1. Start transmission code
2. Number of the next unit to transmit
3. End transmission code
4. All of the above

12-5. When the DTS receives an output requirements, such as its own PU code, what does it do?

1. It generates a prepare to transmit interrupt
2. It generates an operator interface
3. It generates a prepare to receive interrupt
4. All of the above

12-6. The term "Net Sync" applies to which of the following situations?

1. Establishing initial communications
2. Conducting connectivity checks and setting line levels
3. Conducting normal operations
4. During certain tactical situations

12-7. To what does the term "picket" refer?

1. The unit in charge of net operations
2. A participating unit in the link
3. Both 1 and 2 above
4. An NTDS operator

12-8. Which of the following definitions pertain(s) to the Net Control Station?

1. The unit in charge of net operations
2. A participating unit in the link
3. Both 1 and 2 above
4. An NTDS operator

12-9. Which of the following definitions pertain(s) to the link roll call?

1. Interrogation by the NCS in turn
2. A continuous series of messages
3. Net synchronization transmission
4. All of the above

12-10. What is a short range function of HF that can be used over a distance of 25 miles or less?

1. UHF
2. LRI
3. VHF
4. SHF

12-11. Any transceiver of the proper frequency capability is compatible for Link operations.

1. True
2. False

12-12. Dedicated Link transceivers can be used for other communication duties.

1. True
2. False

12-13. UHF radios are generally limited in range to which of the following distances?

1. 200 miles
2. 150 miles
3. 100 miles
4. LOS

12-14. What component of communications equipment allows the antenna and transmission line to be tuned for maximum power out?

1. Coupler
2. PRR adjustor
3. Antenna cable
4. Linear tuner

12-15. What is the minimum frequency separation for preventing energy leakage in multicouplers?

1. 5%
2. 10%
3. 15%
4. 20%

12-16. Which of the following types of switches cause(s) the greatest amount of problems in patching panels?

1. Barrel
2. Closed-face
3. Open-faced
4. Both 2 and 3 above

12-17. Which of the following signal components is/are required for a data signal to be recognized?

1. Preamble signal
2. Framing tone
3. Doppler tone
4. All of the above

12-18. How many tones are used to encode binary data?

1. 1
2. 2
3. 15
4. 16

12-19. Which of the following signal components comprise(s) the data transmission signal?

1. Preamble/phase reference
2. Control codes/Crypto frame
3. Crypto frame/message data
4. All of the above

12-20. What code specifies which PU is to transmit next?

1. Net test
2. Address
3. Start
4. Control

12-21. What will happen if the start code is not received at the NCS's DTS within 15 frames of the call up?

1. The NCS will poll the unit a second time
2. The PU will drop out of the net
3. Both 1 and 2 above
4. The PU will commence radio silence

12-22. For a response not to be jammed by a second call–up, the PU must take which of the following actions?

1. Respond within 7 frames of receiving and recognizing its own address
2. Generate a preamble
3. Generate a phase reference frame
4. Generate a control code

12–23. How many bits of information are included in each message data frame?

1. 2
2. 4
3. 12
4. 24

12-24. Transmissions that do not match any Link 11 transmission structures are known by what name(s)?

1. Crypto spikes
2. Interrogations
3. Transmission anomalies
4. All of the above

12-25. Which of the following factors beyond your control will affect link transmissions?

1. Skywaves, multipath interference
2. Co-channel interference
3. Carrier frequency instability or drift
4. All of the above

12–26. At which of the following levels should link audio be set?

1. 600 ohms
2. 0 dBm
3. Balanced
4. All of the above

12-27. What method(s) of radio keying does link use?

1. Phantom keying
2. Separate unbalanced–to–ground keyline
3. Both 1 and 2 above
4. Pre-keying

12–28. What is a sidetone?

1. An echo of what is being transmitted
2. A balanced keyline
3. Unmodulated RF
4. A balanced impedance

12-29. What causes bleed-over of link transmission on other shipboard circuits?

1. Too much output power
2. Too little ouput power
3. Both 1 and 2 above
4. output power set at minimum level to accomplish the mission

12-30. Which of the following actions solve(s) the problems of inter modulation distortion and mixing of modulation byproducts?

1. Adhering to PMS
2. Using other Link 11 maintenance. publications
3. Using link newsletters and bulletins
4. All of the above

12-31. What is interference from adjacent channels called?

1. Distortion
2. EMI
3. Co-channel interference
4. RFI

12–32. What is the most effective approach to Link 11 problems?

1. Trial and error
2. Systematic troubleshootinq
3. Using an onboard or battle group LMS-11
4. Both 2 and 3 above

12–33. Which of the following factors is/are important in Link 11 planning?

1. Following procedures in the Link 11 SOP
2. Adequate frequency separation
3. Proper crypto/specifiable parameters to all PUs
4. All of the above

12-34. Which of the following actions/conditions is most important in Link 11 operations?

1. Planning
2. Initialization
3. Operator selection
4. Distance of units

12-35. What term is used for the average time between reporting opportunities?

1. Sync complete
2. Transmit data error
3. NCT
4. ROE

12-36. Which of the following is a term used to indicate the ability of a ship to receive?

1. RQ
2. GE
3. SC
4. ROE

12–37. What does an RQ value of less than 7 indicate?

1. Bit errors low
2. Responses from a PU are missing
3. Message data contains bit errors
4. Both 2 and 3 above

12-38. Which of the following is a built-in feature that some link equipment has for troubleshooting?

1. POFA
2. BITE
3. LASS
4. MULTOTS

12–39. What is a shipboard system test that is run by ship’s force to indicate existing link errors?

1. POFA
2. Quicklook
3. MULTOTS
4. LASS

12-40. When can a Link “Quicklook” test be requested?

1. Anytime
2. Only during an availability
3. Anytime the ship is in one of the NCTSI areas
4. All of the above

12-41. At which of the following locations can Link training be found?

1. NTCSI
2. TET
3. CSTT/MOTU
4. All of the above

12-42. What is the activity of planning, monitoring, adjusting assignments, functions, parameters, and participation within the net called?

1. Net management
2. Waterfront seminary
3. Link training
4. Troubleshooting diagnostics

12-43. If an alternate frequency is required on short notice, which of the following is a consistent method for locating one?

1. Periodically scan through frequencies to determine an acceptable alternate
2. Use a frequency assigned to another battle group
3. Use the net coordinators recommendation
4. All of the above

12-44. What is a logical choice of frequencies for (a) daytime and (b) nightime use?

1. (a) Low; (b) high
2. (a) High; (b) low
3. (a) Low; (b) low
4. (a) High; (b) high

QUESTIONS 12-45 THROUGH 12-55 PERTAIN TO CHAPTER 15.

12-45. For which of the following reasons is dry air circulated through electronic equipment?

1. To cool the equipment
2. To remove moisture
3. To prevent corrosion
4. Both 2 and 3 above

12-46. Which of the following are characteristics of good heat sinks?

1. They have a good contact with the equipment
2. They are installed properly with a silicone compound
3. They are free of any dirt or dust
4. All of the above

12-47. What of the following types of cooling produces the best cooling of electronic equipment?

1. Convection cooling with heat sinks
2. Convection cooling without heat sinks
3. Forced air cooling with heat sinks
4. Forced air cooling without heat sinks

12-48. In a forced-air cooling system, which of the following conditions could limit the amount of heat removed from the electronic equipment?

1. Lack of natural convection currents
2. A dirty air filter
3. An obstructed RF interference filter
4. Both 2 and 3 above

12-49. Which of the following factors must you consider when you deal with forced air cooling”?

1. Blower motor bearings
2. Electronic dry air
3. Support systems
4. All of the above

12-50. What is the purpose of a heat exchanger?

1. To maintain dry air pressure
2. To continuously recycle hot air and return cool air
3. To replace the blower motor
4. To replace the recirculating fan

12-51. All air cooling systems depend on which of the following factors?

1. Production of electronic dry air
2. Jury rigging of ventilation systems only in emergencies
3. Proper maintenance of the ship’s ventilation system(s)
4. All of the above

12-52. Which of the following cooling systems is the most efficient?

1. Convection cooling
2. Forced air cooling
3. Air--to-air
4. Liquid cooling

12–53. Which of the following coolant characteristics must be controlled to ensure proper operation of a liquid cooling system?

1. Temperature
2. Quality/purity
3. Flow/pressure
4. All of the above

12-54. What purity level is required for the distilled water used in the secondary loop of a liquid cooling system?

1. Standard
2. Pure
3. Ultrapure

12–55. Which of the following actions help(s) to ensure the quality level of the distilled water?

1. Proper filling
2. Use of a demineralize
3. Double distilling
4. Both 2 and 3 above